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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/634,351

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EXAMINER

LEE, RIP A

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/634,351		LIN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	RIP A. LEE		1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-12, 16, 17, 20, 22, 24-33, 35, 57-62, 65-70 and 73-85 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17, 22, 24-32, 35, 59-62, 65-70, and 73-85 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-12, 16, 19., 20, 33, 57 and 58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This office action follows a response filed on October 7, 2008. Claims 1, 2, 4-12, 16, 17, 20, 22, 24-33, 35, 57-62, 65-70, and 73-85 are pending.

#### *Claim Rejections - 35 USC § 102 / 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 2, 4, 7, 10, 16, 20, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen *et al.* (U.S. 5,105,038).

Table F.3.1 (column 9) of Chen *et al.* discloses five blends having the following composition: (i) 98.9 wt % of two-stage lube and 2.0 wt % of HVI-PAO, (ii) 94.8 wt % of two-stage lube and 5.2 wt % of HVI-PAO, (iii) 89.8 wt % of two-stage lube and 10.2 wt % of HVI-PAO, (iv) 80 wt % of two-stage lube and 20 wt % of HVI-PAO, and 60 wt % of two-stage lube and 40 wt % of HVI-PAO. The polyalphaolefin is derived from 1-decene (col. 8, line 65) and it exhibits a KV<sub>100</sub> of 131.5 cSt, a viscosity index of 213, and a pour point of -37 °C (last entry of table). Elastomer is substantially absent. The two stage lube is a polymer of propylene (col. 8, line 18). As disclosed in the text, col. 5, lines 22-30, the first stage of the two-stage process involves oligomerization of the olefin, and the second stage involves further oligomerization or interpolymerization of the product from the first stage. Thus, the two stage lube adequately qualifies as propylene homopolymer. Compositions contain standard additives (col. 13, lines 4-9) which are capable of conferring slip characteristics. Compositions are used as automotive lubricant or hydraulic fluid, and accordingly, an automotive component comprises the inventive compositions.

3. Claims 5, 8, 9, 11, 12, and 33 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chen *et al.*

The discussion of the disclosures of the prior art from the previous paragraph of this office action is incorporated here by reference. Chen *et al.* is silent with respect to claimed properties, however, in view of the fact that rheological properties are governed, at least in part, to molecular weight, and in light of the fact that the polyalphaolefin of the prior art exhibits all properties recited in claim 1, a reasonable basis exists to believe that the polyalphaolefin of the prior art also exhibits the claimed features recited in claims 8, 9, 11, and 12. A reasonable basis exists to believe that the composition exhibits the claimed property recited in claims 5 and 33, especially in view of the fact that the composition is substantially the same as that recited in the instant claims. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Fitzgerald*, 619 F.2d. 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

4. Claims 6 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen *et al.* (U.S. 5,105,038).

The discussion of the disclosures of the prior art from the previous paragraph of this office action is incorporated here by reference. Chen *et al.* also teaches preparation of other polydecene oligomers (examples H.1, H.2, and H.3; see column 10). Data shown in Table H (columns 10 and 11) show that polydecene H.1, which has a weight average molecular weight of 2420, exhibits a kinematic viscosity of 18.5 cSt and a pour point of -55 ° C. Although the reference does not disclose an example containing a blend of polypropylene and polydecene H.1, the person of ordinary skill in the art would have found it obvious to make such a blend in order to make a suitable lubricant formulation with optimal properties. Since the reference teaches this endeavor, the person of ordinary skill in the art would have expected to make a useful lubricant from polydecene H.1 with a high degree of success.

5. Claim 33 is rejected under 35 U.S.C. 102(e) as being anticipated by Brant (U.S. 6,639,020).

Brant teaches a plasticized polypropylene composition comprising 50-99.9 wt % of polypropylene, 0.1-50 wt % of ethylene copolymer having  $M_w$  in the range of 500-10,000, and up to 20 wt % of modifier. Polypropylenes include polypropylene homopolymer, copolymers, and reactor blends. The ethylene copolymers have a  $T_g$  of from about -80 °C to about -30 °C (col. 5, lines 25-28). For example, "copolymer 5" in Table 2 has a  $T_g$  of -76 °C and a viscosity of 200 cP at 90 °C. Since  $T_g$  is -76 °C, the polyolefin would have a pour point of less than -30 °C. The density of the polymer is not shown, however, it is reasonable to expect that polyolefins have a density in the range of 0.80-0.90 g/cm<sup>3</sup>. Kinematic viscosity is defined as the ratio of viscosity to density. The polyolefin has a viscosity of 200 cP = 2 P = 2 g/cm-sec. Dividing by a density of 0.80 g/cm<sup>3</sup> yields a kinematic viscosity of 2.5 cm<sup>2</sup>/sec = 2.35 St = 235 cSt. Thus, it is reasonable to conclude that the polyolefin exhibits a kinematic viscosity greater than the cited minimum value of 10 cSt even at 100 °C. The reference is silent with respect to the effect of weight percent of plasticizer on  $T_g$  and  $T_m$  of the polypropylene, however, in light of the fact that the polymer and plasticizer are substantially the same as that recited in the instant claim, it is reasonable to believe that this property is inherently exhibited by compositions of Brant.

6. Claims 1, 2, 4, 5, 7-12, 16, 20, 33, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki *et al.* (JP 11-049903).

Sasaki *et al.* discloses a composition comprising 80-99 wt % of a copolymer of ethylene and propylene and 1-20 wt % of a paraffinic oil having a weight average molecular weight if 200-2000, a kinematic viscosity of 20-800 cSt, and a pour point of -40 °C to 0 °C (abstract). The reference does not show a working example of use of ethylene-propylene copolymer, however, it would have been obvious to one having ordinary skill in the art to prepare a composition containing ethylene-propylene copolymer because such an embodiment is within the scope of the invention of Sasaki *et al.*; see also paragraph [0015] which discloses alpha olefin comonomer for preparation of copolymers of the invention. Although the working examples of Sasaki *et al.* disclose use of paraffinic oils that have pour points of -15 °C (Diana PW90) and -10 °C (Diana

PW30), it would have been obvious to one having ordinary skill in the art to use a paraffinic oil having a pour point of -40 °C because such an oil exhibits a pour point within the limit set forth by the inventors. Accordingly, one of skill in the art would have expected such an embodiment to work with a reasonable expectation of success. Slip agents are disclosed in paragraph [0020]. Compositions are made into films; see paragraph [0021].

The reference is silent with respect to the relationship between  $T_m$ ,  $T_g$  of the composition and wt % of paraffinic oil, however, in view of the fact that the composition is substantially the same as that described in the claims, a reasonable basis exists to believe that compositions of Sasaki *et al.* exhibit the claimed relationship. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)

7. Claims 17, 22, 24-32, 35, 59-62, 65-70, and 73-85 are allowed.

### ***Response to Arguments***

8. Applicant traverses the rejection of claims over Sasaki *et al.* (JP 11-49903, hereinafter “Sasaki”), set forth in paragraph 2 of the previous office action dated June 20, 2008. First, it is noted that the current rejection based on Sasaki is based on obviousness while the rejection presented in the office action dated December 5, 2005 is based on anticipation against claims having entirely different scope. As such, grounds of rejection are completely different. Furthermore, claims were not allowed, as submitted by Applicant.

Applicant submits that Sasaki teaches a polyethylene composition, however, the polyethylene also contains propylene as comonomer, and absent any qualification of the term “polypropylene,” an ethylene-propylene copolymer containing polymerized propylene units, in the broadest interpretation, is also considered “polypropylene.” Allegations regarding molecular weight of polymers of Sasaki are noted, but are not supported by fact. It is noted that arguments of counsel can not take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); *In re Geisler*, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997). Applicant argues that Sasaki’s process oil is functionalized since it may contain some

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naphthenic oils and aromatic oils, equating aromatic groups with aryls and substituted aryls. This line of reasoning is not found persuasive because Sasaki teaches that the process oil is preferably a paraffin series oil since these have good heat resistant properties, and therefore, the skilled artisan would have found it obvious to use a paraffin oil. The paraffin oil used by the invention has a kinematic viscosity of 20-800 cSt and a pour point in the range of 0 °C to -40 °C. Applicant points to the fact that the reference teaches use of Diana PW-90 and Diana PW-380 process oils, however, this is a preferred embodiment, only. A reference must be considered in its entirety, and it is well settled that the disclosure of a reference is not limited to preferred embodiments or specific working examples therein. *In re Fracalossi*, 681 F.2d 792, 794, 215 USPQ 569, 570 (CCPA 1982); *In re Lamberti*, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976). Rather, a reference is relevant for all that it contains. *In re Heck*, 669 F.2d 1331, 1333, 216 USPQ 1038, 1039 (Fed. Cir. 1983). Applicant has not shown why the person of ordinary skill in the art would not have found it obvious to use those oils whose pour points lie within the range of from -40 °C and up, as taught in Sasaki. In light of these considerations, the rejection has been maintained.

The rejection of claims over Tabata *et al.* (JP 9-208761), set forth in paragraph 3 of previous office action dated June 20, 2008 has been withdrawn. Instant claims recite the limitation that polyethylene having  $M_w$  of from 500-10,000 is substantially absent. Lucant HC-40, shown in the prior art as an ethylene/alpha olefin oligomer having a molecular weight of about 1030, would be excluded by this claim limitation.

The rejections of claims under 35 U.S.C. 103(a) based on Brant (U.S. 6,639,020), set forth in paragraphs 4 and 5 of previous office action dated June 20, 2008 have been withdrawn. Brant is disqualified as a reference since the subject matter therein and that of the instant invention were subject to an obligation to the same assignee at the time the instant invention was made. Indexing of claim 33 to be included in this rejection was made in error, and a rejection under 35 U.S.C. 102(e) over Brant alone, has been presented in paragraph 5 of this office action, *supra*.

Obviousness type double patenting rejections have been withdrawn in view of filing of terminal disclaimers.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu S. Jagannathan, can be reached at (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Rip A. Lee/  
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January 1, 2008